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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,105	07/31/2001	Jessica Malmborg	P01.0225	3462

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EXAMINER

BONSHOCK, DENNIS G

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,105

Applicant(s)

MALMBORG, JESSICA

Examiner

Dennis G. Bonshock

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Final Rejection

Response to Amendment

1. It is hereby acknowledged that the following papers have been received and placed on record in the file: Amendment as received on 07-01-2004.
2. Claims 1-16 have been examined.

Status of Claims:

3. Claims 1-12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al., Patent #4,675,147, hereinafter Schaefer and Feller, Patent #6,343,508.
4. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer, Feller, and Meier et al., Patent #6,211,887, hereinafter Meier.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claim 1 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The examiner agrees that sections are not limited in size by adjoining measures, however there is not support in the specification or the drawing, and in fact they teach against the sectors being displayed without

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inter-relation, the sections are displayed with relation to one another by being uniformly varied from the same regular polygon, having a predetermined radial size.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 14 recites the limitation "said region polygon" in line 3. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the said regular polygon and said at least one additional regular polygon are said to be displayed in a small and large format.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al., Patent #4,675,147, hereinafter Schaefer and Feller, Patent #6,343,508.

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12. With regard to claim 1, Schaefer teaches a interface for a medical apparatus (see column 2, lines 53-58), a display screen and memory for storing and displaying at least two parameters (see column 3, lines 1-3 and column 4, lines 11-24), a controlling unit for displaying a representative display of each parameter as a sector in a regular polygon, and varying the display based on a difference from the normal (see column 2, lines 25-29 and column 3, lines 16-41). Schaefer further teaches sectors that have a constant angular size (see figures 1 and 5) and a regular polygon having a predetermined size representing normal data (see column 2, lines 25-29) where deviations are relative to the normal (see column 2, lines 25-41). Although Schaefer teaches a display of sectors of readings of data relative to a normal, Schaefer doesn't specifically teach sectors being displayed without inter-relation to each other or uniformly varying a radial size. Feller teaches a display of sectors in a graph view that more closely resembles that as taught by the applicant (see column 1, line 40 through column 2, line 7, column 2, lines 38-49, and in figures 1-3). Feller teaches, in column 2, line 45-48 the display of figure 3, straight lines are used to delaminate sectors, and Feller teaches, in column 1, lines 44-50 and figure 8, sectors being displayed independent of neighboring sectors, and uniformly varying the radial size of the sectors. It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer and Feller before him at the time the invention was made to modify the display of Schaefer to more closely resemble the display of Feller. One would have been motivated to make such a combination because the systems are both teaching a graphical display of

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multiple components so as to allow the user to see deviation from the normal by a morphing of the shape.

13. With regard to claim 2, which teaches varying the appearance only if a difference between the normal data and the signal data exceeds a predetermined threshold value, Schaefer further teaches, in column 4, lines 11-24 and in column 9, lines 39-53, a color change associated with the status exceeding some predefined value.

14. With regard to claim 3, which teaches varying the area of said sector to produce a clear visual distinction between the sector and adjacent sectors, Schaefer further teaches, in column 4, lines 3-24 and in figures 5 and 6, the deviation of area producing a visual distinction between other sectors. Feller further teaches, in column 1, lines 44-50 and figure 8, varying area by increasing or decreasing radial size of the sectors.

15. With regard to claim 4, which teaches increasing the area if the signal data is larger than the normal data, and decreasing the area if signal data is less than normal data, Schaefer further teaches, in column 16, lines 25-51 and in figure 8 modifying the polygon in response to changes in the status signals. Feller further teaches, in column 1, lines 44-50 and figure 8, varying area by increasing or decreasing radial size of the sectors.

16. With regard to claim 5, which teaches generating an inner regular polygon representing a lower alarm limit for at least two parameters, Schaefer further teaches, in column 2, lines 36-41, inner regular polygon representing a lower alarm limit and in column 11, lines 54-57, alarm limits.

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17. With regard to claim 6, which teaches the control unit varying the sector in steps toward said lower alarm limit, Feller further teaches, in column 1, line 50 through column 2, line 7, measurements varying in steps toward some minimum or maximum limit value. Feller further teaches, in column 1, lines 44-50 and figure 8, varying area by increasing or decreasing radial size of the sectors.

18. With regard to claim 7, which teaches the control unit varying the sector in two steps, Feller further teaches, in column 1, line 50 through column 2, line 7, measurements varying in steps toward some minimum or maximum limit value. Where it would be obvious to vary in two steps. Feller further teaches, in column 1, lines 44-50 and figure 8, varying area by increasing or decreasing radial size of the sectors.

19. With regard to claim 8, which teaches generating an outer regular polygon representing a upper alarm limit for at least two parameters, Schaefer further teaches, in column 2, lines 36-41, outer regular polygon representing a upper alarm limit and in column 11, lines 54-57, alarm limits.

20. With regard to claim 9, which teaches the control unit varying the sector in steps toward the upper alarm limit, Feller further teaches, in column 1, line 50 through column 2, line 7, measurements varying in steps toward some minimum or maximum limit value.

21. With regard to claim 10, which teaches the control unit varying the sector in two steps, Feller further teaches, in column 1, line 50 through column 2, line 7, measurements varying in steps toward some minimum or maximum limit value. Where it would be obvious to vary in two steps.

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22. With regard to claim 11, which teaches generating sectors in color, and varying color dependent on the result of a comparison, Schaefer further teaches, in column 4, lines 11-24 and in column 9, lines 39-53, using colors to differentiate sectors and having a color change in response to exceeding some limit.

23. With regard to claim 12, which teaches the generating a regular polygon as a circle, Feller further teaches, in figures 1-3, a representation of the graph using arcs.

24. With regard to claim 14, which teaches the control unit generating at least one additional regular polygon on the display, Schaefer further teaches, in column 2, lines 25-41, the generation of a normal polygon which remains on the screen along with the measured polygon, which would be normal given uniform increase of monitored values.

25. With regard to claim 15, which teaches the stacking of polygons, where the one with largest deviation is on top of the stack, Schaefer teaches, in column 2, lines 25-41 and in figure 5, the stacking of polygons where the normal appears in a dotted line state, the other that is produced by measured values appears in a dark form over the other.

26. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer, Feller, and Meier et al., Patent #6,211,887, hereinafter Meier.

27. With regard to claim 13, Schaefer and Feller teach the system for providing a display of medical measurements in the form of sectors in a polar chart using polygons to connect measurements, as rejected supra. Schaefer and

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Feller, however, don't teach a touch sensitive surface for accessing more detailed information with respect to the touched parameter. Meier teaches a system of viewing multiple measures on a polar chart and connecting measures with a polygon, similar to that of Schaefer and Feller, but further teaches, in column 2, lines 45-50 and column 3, lines 32-40, a system where a touch screen is present where selection can be made on the screen for entry, modification, and storage of record data. It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer, Feller, and Meier before him at the time the invention was made to modify the display of Schaefer and Feller to include the touch sensitive information providing display of Meier. One would have been motivated to make such a combination because touch sensitive displays provide an intuitive means of selecting items on a display device.

28. With regard to claim 16, Schaefer and Feller teach the system for providing a display of medical measurements in the form of sectors in a polar chart using polygons to connect measurements, as rejected supra. Schaefer and Feller, however, don't teach the display of the multiple polygons in a small format, where at least one is displayed in a larger format. Meier teaches a system of viewing multiple measures on a polar chart and connecting measures with a polygon, similar to that of Schaefer and Feller, but further teaches, in column 5, lines 10-40, a system the hash marks can be changed so as to change the size of the respective polygon. It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer, Feller, and Meier before him at the time the invention was made to modify the display of Schaefer and Feller to

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include the sized modification means of Meier. One would have been motivated to make such a combination because displaying some polygons in a smaller format can allow for more polygons to be displayed and free up display space for other information.

Response to Arguments

29. The arguments filed on 07-01-2004 have been fully considered but they are not persuasive. Reasons set forth below.

30. The applicants' argue that if the Schaefer reference were modified to have an appearance close to the Feller display it would result in a completely different manner of displaying information and would not display information with the same level of clarity, and inter-relation between adjacent sectors as in the Schaefer reference.

31. In response, the examiner respectfully submits that the references of Schaefer and Feller are analogous, as both being drawn to a means of representing a plurality of properties in a graph map radiating from an origin, only having subtle design choice differences, such as the Schaefer reference teaching a graph display of a plurality of measures where the measures are shown at points around the perimeter which are further connected by lines to form the polygon, where Feller teaches a graph display of a plurality of measures where the measures are shown radially without out interrelation between adjacent elements.

32. The applicants' argue that there is no teaching in Feller that the various sectors are ever all displayed together within this circle of constant radius.

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33. In response, the examiner respectfully submits that this limitation is supplemented by the Schaefer references teaching of a regular polygon having a predetermined size representing normal data (see column 2, lines 25-29

34. The applicants' argue that there is no teaching in Meier that the top most displayed polygon represents the largest deviation from normal data.

35. In response to the applicant's arguments, regarding claim 15, they have been considered but are moot in view of the new ground(s) of rejection.

36. The applicants' argue that Meier's selecting the hash marks gradations or even the maximum has(h) mark value from a particular axis is not the same as selecting a size format.

37. In response, the examiner respectfully submits that the claim is not limiting to having two different simultaneous displays at different sizes, stating that the regular polygon can be both in small and large formats (where one element obviously can't be in a large and small format simultaneously), further see the above 112 rejection above. The Meier reference does teach this limitation as the claim is currently written, in column 5, lines 10-40, teaching a system in which the hash marks can be changed so as to change the size of the respective polygon.

Conclusion

38. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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39. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

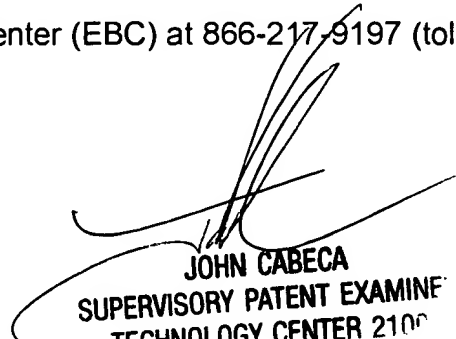
40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis G. Bonshock whose telephone number is (571) 272-4047. The examiner can normally be reached on Monday - Friday, 6:30 a.m. - 4:00 p.m.

41. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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42. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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